

AMENDMENTS TO THE CLAIMS

The following is a complete listing of revised claims with a status identifier in parenthesis.

LISTING OF CLAIMS

1. (Original) A liquid crystal display, comprising:

a memory storing, until a next time, current data indicating current brightness of each pixel provided in a liquid crystal panel;

a look-up table precedently storing (i) combinations of previous data and the current data, the combinations having possibilities to be inputted, and (ii) output signals corresponding to the respective combinations;

control means for outputting an output signal as corrected current data in order to facilitate grayscale transition from a previous time to a current time, by reading out, from the look-up table, data corresponding to a combination of previous data read out from the memory and current data, and outputting that data or that data after being interpolated, instead of the current data;

a heater heating the liquid crystal panel; and

heater control means for controlling start and stop of heating by the heater, in such a manner as to keep a temperature of the liquid crystal panel to be not more than $\pm 3^{\circ}\text{C}$ of a predetermined target temperature which is within a range between 33°C and 63°C .

2. (Original) The liquid crystal display as defined in claim 1, wherein, a number of the look-up table is one.

3. (Original) The liquid crystal display as defined in claim 1, wherein, the look-up table is arranged so as to correspond to the target temperature.

4. (Original) The liquid crystal display as defined in claim 1, wherein, the target temperature is determined to be within a range between 48°C and 63°C.

5. (Original) The liquid crystal display as defined in claim 2, wherein, the target temperature is determined to be within a range between 48°C and 63°C.

6. (Original) The liquid crystal display as defined in claim 1, wherein, the liquid crystal panel includes a liquid crystal cell in vertical align mode and is driven in normally black mode.

7. (Original) A liquid crystal display, comprising:
a memory storing, until a next time, current data indicating current brightness of each pixel provided in a liquid crystal panel;

a look-up table precedently storing (i) combinations of previous data and the current data, the combinations having possibilities to be inputted, and (ii) output signals corresponding to the respective combinations;

control means for outputting an output signal as corrected current data in order to facilitate grayscale transition from a previous time to a current time, by reading out, from the look-up table, data corresponding to a combination of previous data read out from the memory and current data, and outputting that data or that data after being interpolated, instead of the current data;

a heater heating the liquid crystal panel; and

heater control means for controlling the heater so as to either stop the heating by the heater when a temperature of the liquid crystal panel exceeds a threshold value which is 1°C through 1.5°C higher than a target temperature, or start the heating by the heater when the temperature of the liquid crystal panel goes below a threshold value which is 1°C through 1.5°C lower than the target temperature, the target temperature being determined in advance to be in a range between 33°C and 63°C.

8. (Original) The liquid crystal display as defined in claim 7, wherein, a number of the look-up table is one.

9. (Original) The liquid crystal display as defined in claim 7, wherein, the look-up table is arranged so as to correspond to the target temperature.

10. (Original) The liquid crystal display as defined in claim 7, wherein, the target temperature is determined to be within a range between 48°C and 63°C.

11. (Original) The liquid crystal display as defined in claim 8, wherein, the target temperature is determined to be within a range between 48°C and 63°C.

12. (Original) The liquid crystal display as defined in claim 7, wherein, the liquid crystal panel includes a liquid crystal cell in vertical align mode and is driven in normally black mode.

13. (Original) A liquid crystal display, comprising:
a memory storing, until a next time, current data indicating current brightness of each pixel provided in a liquid crystal panel;
a look-up table precedently storing (i) combinations of previous data and the current data, the combinations having possibilities to be inputted, and (ii) output signals corresponding to the respective combinations;

control means for outputting an output signal as corrected current data in order to facilitate grayscale transition from a previous time to a current time, by reading out, from the look-up table, data corresponding to a combination of previous data read out from the memory and current data, and outputting that data or that data after being interpolated, instead of the current data;

a heater heating the liquid crystal panel; and

heater control means for controlling start and stop of heating by the heater, in such a manner as to keep a difference between a temperature of the liquid crystal panel and a target temperature to be not more than a predetermined threshold value, the target temperature being a temperature at which, by facilitating the grayscale transition by the control means, each pixel is virtually able to reach a desired grayscale level in every grayscale level transition,

the threshold value being set in such a manner as to keep a difference between a grayscale level at which a pixel reaches as a result of the grayscale level correction by the control means and a target grayscale level to be within an allowable range.

14. (Original) The liquid crystal display as defined in claim 13, wherein, a number of the look-up table is one.

15. (Original) The liquid crystal display as defined in claim 13, wherein, the look-up table is arranged so as to correspond to the target temperature.

16. (Original) The liquid crystal display as defined in claim 13, wherein, the target temperature is determined to be within a range between 33°C and 63°C.

17. (Original) The liquid crystal display as defined in claim 14, wherein, the target temperature is determined to be within a range between 33°C and 63°C.

18. (Original) The liquid crystal display as defined in claim 13, wherein, the target temperature is determined to be within a range between 48°C and 63°C.

19. (Original) The liquid crystal display as defined in claim 14, wherein, the target temperature is determined to be within a range between 48°C and 63°C.

20. (Original) The liquid crystal display as defined in claim 13, wherein, the allowable range is such a range that an error between

a target brightness and a brightness obtained as a result of the grayscale transition to the current time is not more than $\pm 20\%$.

21. (Original) The liquid crystal display as defined in claim 14, wherein, the allowable range is such a range that an error between a target brightness and a brightness obtained as a result of the grayscale transition to the current time is not more than $\pm 20\%$.

22. (Original) The liquid crystal display as defined in claim 13, wherein, the liquid crystal panel includes a liquid crystal cell in vertical align mode and is driven in normally black mode.

23. (New) The liquid crystal display as defined in claim 1, wherein, the heater control means controls start and stop of heating by the heater irrespective of ambient temperature.